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Peter T. Barrett

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EXAMINER

RYAN, PATRICK A

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/676,246	Applicant(s) BARRETT ET AL.	
	Examiner PATRICK A. RYAN	Art Unit 2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8,11-19 and 22-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,11-19 and 22-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is made in reply to Response to Non-Final Office Action, filled March 17, 2009 ("Reply"). Applicant has amended Claim 29; no claims have been added; and Claims 2, 6, 9, 10, 20, and 21 were previously canceled (see March 4, 2008 amendment). As amended, Claims 1, 3-5, 7, 8, 11-19, and 22-35 are presented for examination.

2. In Office Action of December 17, 2008 ("Office Action"):

Claims 29-30 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Claims 31, 34, and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky et al., United States Patent Application Publication (2003/0014752 A1) in view of Dawson et al., United States Patent Application Publication (2004/0184523 A1).

Claims 1, 3, 4, 5, 7, 8, 11, 15-19, 22, 25-30, 32, and 33 were rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky in view of Norsworthy et al, United States Patent (6,481,012 B1) in further view of Dawson.

Claims 12, 13, 14, 23, and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky, Dawson, and Norsworthy as applied to Claims 8 and 19 above, and further in view of Gordon et al., United States Patent (6,481,012 B1).

Response to Arguments

3. Applicant's arguments, see Reply Page 13, with respect to the rejection of Claims 29-30 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement, have been considered but they are not persuasive (see additional comments presented under 112 heading below).

4. Applicant's arguments, see Reply Pages 18-21, with respect to the rejection of independent Claim 31 under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky in view of Dawson have been considered but they are not persuasive.

Applicant presents that the combination of Zaslavsky and Dawson does not disclose, teach, or suggest displaying a reduced scale thumbnail video feed "in response to a request for the thumbnail video feed of each area, via a communications network" because "Dawson merely describes downsizing an auxiliary video upon receiving a request. Nowhere does Dawson disclose or teach a request for downsizing multiple video videos." (Reply Paragraphs [0015-0016]). Applicant additionally presents that the Examiner's stated motivation for creating the combination of Zaslavsky and Dawson is not valid because "the requests of Zaslavsky and Dawson [are] totally different" and "it is seemingly unclear for one of ordinary skill in the art how and why already downsized thumbnail videos in the selection block 803 [of Zaslavsky] are selectively requested for further downsizing should Zaslavsky and Dawson have been combined" (Reply Paragraphs [0017-0020]). The Examiner respectfully disagrees.

The Examiner submits that Dawson is not relied upon to provide a teaching of downsizing multiple video feeds. Contrary to Applicant's argument (Reply Paragraph [0016]), it is Dawson's teachings of providing a request over a communications network for the transmission of reduced scale video feeds to a client device that is relied upon (Office Action Pages 8 and 9; with further reference to Dawson Paragraph [0027-0032]). As Applicant's claim language requires, "a request for the thumbnail video feed" is transmitted over a communications network. The Examiner has interpreted this claim language to be directed toward a process of "transmitting" and not a process of "downsizing" that is preformed in response to the request. Therefore, the Examiner submits that Dawson addressed the claim limitation transmitting "in response to the request for the thumbnail video feed of each area, via a communications network".

The Examiner has relied upon the Zaslavsky reference to demonstrate a method and system for receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network and for allowing a user to designate the thumbnail video feeds that are to be displayed. However, Zaslavsky simultaneously transmits all available thumbnail video feeds over the communications network to the client device and does not provide a user with the option of designating which thumbnail video feeds are to display prior to transmission to the client device. Therefore the Examiner has supplemented the teachings of Zaslavsky with Dawson's demonstration of a client device capable of providing a request signal over a communications network for the purpose of delivering a PIP video stream (i.e. a thumbnail video feed) to the

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client device at the request of the user (Office Action Pages 8-9; with further reference to Request Signal 221 of Dawson, as described in Paragraph [0032]).

It is the Examiner's position that both Zaslavsky and Dawson demonstrate similar techniques of reducing full scale video feeds to thumbnail video feeds prior to the feeds being transmitted to a client device (which appears to be in accordance with Applicant's interpretation as presented in Reply Paragraphs [0018-0019]). As the Examiner has previously presented (Office Action Page 9), one of ordinary skill in the art would have been motivated at the time of the invention to use the teachings of Zaslavsky in conjunction with the teachings of Dawson "in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050])". In other words, Zaslavsky's system and method of transmitting all available thumbnail video feeds simultaneously would benefit from Dawson's teachings of allowing a user to select the thumbnail video feeds prior to transmission because the client device of Zaslavsky would not be required to process every available thumbnail video feed that is transmitted over the communications network. Therefore, the Examiner submits that Zaslavsky and Dawson are properly presented in a combination that would yield predictable results.

5. Applicant's arguments, see Reply Pages 21-28, with respect to the rejection of independent Claim 1 under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky in view of Norsworthy, and in further view of Dawson have been considered but they are not persuasive.

Applicant's arguments presented in Paragraphs [0025-0028] regarding the combination of Zaslavsky and Dawson have been addressed with reference to Claim 31 (as presented above). Applicant additionally presents that the combination of Zaslavsky, Dawson, and Norsworthy do not disclose, teach, or suggest "transmitting a plurality of audio feeds separately from the plurality of the thumbnail video feeds over the communications network" because Norsworthy demonstrates a system and method where "audio and video signals are bundled together as an IF signal before transmission" (Reply Paragraphs [0029-0038]; with particular reference to Paragraph [0036] and Norsworthy Col. 3 Line 66—Col. 4 Line 5). The Examiner respectfully disagrees.

The Examiner submits that the portion of Norsworthy cited by Applicant pertains to the output of audio and video information at the user's location, and not to the transmission of audio and video information. Norsworthy discloses that RF (Radio Frequency) signals that are transmitted to the client device are received by Antenna 101, where "Antenna 101 could be a cable or an antenna, or other source of RF, which would be frequency division multiplexed into many channels" (Col. 3 Lines 56-60). Additionally, "the tuner would select one of those channels, filter out the rest, and translate that channel to an IF [Intermediate Frequency]." (as Norsworthy discloses in Col. 3 Lines 62-23). The Institute for Telecommunication Sciences (ITS) defines Frequency-Division Multiplexing (FDM)¹ to be "[t]he deriving of two or more

¹ Institute for Telecommunication Sciences, frequency-division multiplexing, < http://www.its.bldrdoc.gov/fs-1037/dir-016/_2344.htm> published August 23, 1996, accessed June 24, 2009.

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simultaneous, continuous channels from a transmission medium by assigning a separate portion of the available frequency spectrum to each of the individual channels.”

It is the Examiner's position that Norsworthy's teaching of transmitting signals using FDM demonstrates that audio and video signals are transmitted separately and simultaneously to the client device in channels defined by unique portions of the frequency spectrum (i.e. IF bands), which is in accordance with the above definition.

The Examiner has relied on Col. 3 Lines 27-55, Col. 4 Lines 59-62, and Figure 9 of Norsworthy (Office Action Page 12-13) in order to teach the above cited limitation. In particular, the Norsworthy teaches “the PIP [Picture-in-Picture] system 90 uses a single tuner (tuner 11) controlling several channels. Audio is provided by a separate tuner (tuner 91)” (as disclosed in Col. 4 Lines 59-62 and shown in Fig. 9). As shown in Figure 9, Norsworthy's “PIP system 90” contains two tuners, one for “Audio” and one for “PIP”. It is the Examiner's position that the Tuner 91 of Figure 9 is intended to receive audio streams corresponding to the PIP video streams (received by Tuner 11) because these tuners are contained within the “PIP system 90” and, as Norsworthy describes in Col. 3 Lines 27-55, multiple PIP's are indented for transmission. In addition, the Examiner notes that each tuner contains a First and Second IF Filter (8109 and 8113 of Fig. 8) for decoding information contained in multiple channels (as Norsworthy describes in Col. 33-47). Therefore, the Examiner submits that Norsworthy does in fact teach “transmitting a plurality of audio feeds separately from the plurality of thumbnail video feeds over the communications network”.

6. Applicant's arguments regarding the rejection of independent Claims 5, 8, 19, and 29 under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky in view of Norsworthy, and in further view of Dawson are similar to those addressed with reference to Claim 31 and Claim 1. The rejections are therefore upheld in accordance with the reasoning presented above.

7. Applicant's arguments, see Reply Pages 38-40, with respect to the rejection of dependent Claims 12, 13, 14, 23, and 24 under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky, Dawson, and Norsworthy, and further in view of Gordon, specifically the teachings of Gordon, have been considered but they are not persuasive.

Applicant presents that Gordon does not teach the limitation "zooming the select one of the plurality of the presented thumbnail video feeds so that the select one inhabits much or all of the available screen space" because "the cited portions of Gordon merely describe the display being changed to a full-resolution view following a selection in corresponding thumbnail view" (Reply Paragraphs [0075-0077]; with further reference to Office Action Pages 31-32). The Examiner respectfully disagrees.

The Examiner has relied on the Figure 28 of Gordon to demonstrate the act of selecting a thumbnail video feed ("object for channel E" shown in left mosaic display of Fig. 28), which invokes the "the full-resolution display 2802" (as Gordon describes in Col. 24 Lines 11-18; with further reference to Office Action Page 21). The Examiner interprets Gordon's use of the word "resolution" to be related to the size of the displayed object because, with reference to Figure 23, Gordon describes:

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nine objects may be displayed on one full-size video screen by dividing the screen into a 3.times.3 matrix with nine areas. In this case, each of the nine objects would be displayed at 1/3 of the full horizontal resolution and 1/3 of the full vertical resolution. (as disclosed in Col. 22 Lines 1-19)

It is the Examiners position that, in view of the above citation from Gordon, the word "resolution" is intended to relate to screen size (i.e. 1/3 resolution relating to an object that has a dimension 1/3 of the total screen) and therefore presents that Gordon's use of the words "full-resolution" is equivalent to "full-screen" or "full-scale." The Examiner additionally submits that Gordon's "Full-Resolution CH-E" is in accordance with the language used in Applicant's specification. In particular, Paragraphs [0058 and 0072] describe that "UI producer zooms in on the thumbnail video feed so that it takes over the entire screen." Therefore, the Examiner submits that Gordon does in fact teach "zooming the select one of the plurality of the presented thumbnail video feeds so that the select one inhabits much or all of the available screen space".

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 29-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

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had possession of the claimed invention. In particular, the Applicant lacks sufficient support for the claimed limitation: “a receiving unit configured for concurrently receiving, without any in-band or out-of-band tuners... a plurality of scaled-reduced video feeds.”

Applicant has provided Paragraphs [0064] and [0092] of the instant application for support of the current claim amendments. Paragraph [0064] is directed towards a Picture-in-picture type interface and recites: “However, here the user is not limited by the number of tuners of her multimedia system. Rather, she is only limited by the bandwidth available for sending multiple thumbnail video feeds.” Paragraph [0092] is directed towards components of Presentation Device 608 and recites: “presentation device 608 includes a first tuner 800 and an optional second tuner 802. The tuners 800 and 802 are representative of one or more in-band tuners that tune to various frequencies or channels to receive television signals, as well as an out-of-band tuner or receiver or network interface card that tunes to or receives the multicast communications channel over which other content may be multicast to presentation device 608.”

It is the Examiner's position that Paragraphs [0064] and [0092] demonstrate that the client device of the instant application operates using tuner components that can be "in-band" and “out-of-band” tuners (i.e. elements 800 and 802 of Fig. 8). The Examiner finds no support within Paragraphs [0064] and [0092] for a receiving device operating without any in-band or out-of-band tuners (as required by Claim 29). Additionally, the Examiner has previously presented Paragraph [0032] of the instant application as the closest supporting description of Applicant's indented meaning of a device "without

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any... tunes". In particular, Paragraph [0032] of the instant application recites "...UI [User Interface] producer does not utilize tuners to receive multiple video feeds...", and "[r]ather, it uses a communications network." However, it is the Examiner's position that Paragraph [0032] provides insufficient support for a receiver without a tuner because no alternate device is described to provide an interface with the "communications network".

In accordance with MPEP section 2173.05(i) Negative Limitations: "Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims" (see also²). It is the Examiner's position that "in-band or out-of-band tuners" can not be excluded as claimed because no alternative devices are positively recited in the specification. For the purpose of this Office Action, the Examiner will assume "receiving unit... without any tuners" to represent a device that "use[s] a communications network" (such as a set-top box connected to a cable television network), in light of Paragraph [0032] of the instant application.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

² *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984)

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 31, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky et al., United States Patent Application Publication (2003/0014752 A1), hereinafter "Zaslavsky", in view of Dawson et al., United States Patent Application Publication (2004/0184523 A1), hereinafter "Dawson".

12. In regards to Claim 31, Zaslavsky teaches a computer-readable medium having computer-executable instructions (hardware 1700, as described in Paragraph [0141]) that, when executed by a computer, produce a user-interface (UI) of a multimedia system (CPU 200 as described in Paragraph [0096] Lines 9-11), the UI comprising multiple "thumbnail" display areas (interface block 803 of Fig. 14, as described in Paragraph [0135]), each area configured to display a reduced-scale ("thumbnail") video feed received in response to a request for the thumbnail video feed of each area (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The "channels" (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the "User input selecting "channel" for textural mapping" received by Input Circuit 1708 of Fig. 17).

Zaslavsky teaches receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 “that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215” (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also “provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images” and “may communicate with the video content server by means of a request signal 221” (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]).

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13. In regards to Claim 34, the combination of Zaslavsky and Dawson teach a medium as recited in Claim 31, wherein each thumbnail video feed displayed is a separate and distinct video feed (mapped areas 810x, 810y, and 810z of Fig. 16 contain video frames 505x, 505y, and 505z, as described in Paragraph [0138-0140]).

14. In regards to Claim 35, Zaslavsky and Dawson teach a medium as recited in Claim 31, wherein the UI further comprises an executable program module configured to respond to user selection of one of the multiple thumbnail display areas (transducer 212 of Fig. 7, as described in Paragraph [0097] Lines 1-9; with further reference to channel 911 of Fig. 15 that allows a user to “select the preferred channel”, as described in Paragraph [0137]).

15. Claims 1, 3, 4, 5, 7, 8, 11, 15-19, 22, 25-30, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky in view of Dawson, and in further view of Norsworthy et al., United States Patent (6,6481,012 B1), hereinafter “Norsworthy”.

16. In regards to Claim 1, Zaslavsky teaches a computer-readable medium having computer-executable instructions (hardware 1700, as described in Paragraph [0141]) that, when executed by a computer (CPU 200 as described in Paragraph [0096] Lines 9-11), performs a method comprising:

reducing the scale of a video feed to produce its "thumbnail" video feed (size conversion function 401 of Figure 10, as described in Paragraph [0127]);

receiving a request for a plurality of the thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The “channels” (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the “User input selecting “channel” for textural mapping” received by Input Circuit 1708 of Fig. 17); and

concurrently transmitting the plurality of the thumbnail video feeds over a communications network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced-scale thumbnail video feeds 1-100 and 101-x transmitted along with standard channels 400).

Zaslavsky teaches generating multiple scale-reduced thumbnail video feeds that are concurrently transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 “that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215” (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also “provides a small PIP display 219

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inside the devices larger main video display 217 area for presenting picture images” and “may communicate with the video content server by means of a request signal 221” (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach transmitting a plurality of audio feeds separately from the plurality of the thumbnail video feeds over the communications network.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norsworthy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting

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audio and video signals in separate streams, as received by Tuner 11 for PIP video and Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

17. In regards to Claim 3, the combination of Zaslavsky, Dawson, and Norsworthy teach a medium as recited in Claim 1, wherein the method further comprises preprocessing the video feed to aid in producing a low-resolution version (Zaslavsky teaches further processing with encoding and multiplexer element 402 to create separate stream 1-100, as disclosed in Paragraph [0127], where the stream could be "converted down to 20x16 pixels for example").

18. In regards to Claim 4, the combination of Zaslavsky teaches a computing device (CPU 200 as described in Paragraph [0096] Lines 9-11) comprising: a media-stream transmitter (transmission circuit 1806 of Figure 18, as described in Paragraph [0142] Lines 9-11); a medium as recited in Claim 1 (the limitations of the method of Claim 1

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have been addressed above using the combination of Zaslavsky, Dawson, and Norsworthy).

19. In regards to Claim 5, Zaslavsky teaches a method comprising
- reducing the scale of a video feed to produce its "thumbnail" video feed (size conversion function 401 of Figure 10, as described in Paragraph [0127]);
- receiving a request for a plurality of the thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The "channels" (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the "User input selecting "channel" for textural mapping" received by Input Circuit 1708 of Fig. 17);
- concurrently transmitting the plurality of the thumbnail video feeds over a communications network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced-scale thumbnail video feeds 1-100 and 101-x transmitted along with standard channels 400).

Zaslavsky teaches generating multiple scale-reduced thumbnail video feeds that are concurrently transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 “that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215” (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also “provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images” and “may communicate with the video content server by means of a request signal 221” (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach transmitting a plurality of audio feeds separately from the plurality of the thumbnail video feeds over the communications network.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norsworthy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

20. In regards to Claim 7, the combination of Zaslavsky, Dawson, and Norsworthy teach a method as recited in Claim 5, further comprising preprocessing the video feed to aid in producing a low-resolution version (Zaslavsky teaches further processing with encoding and multiplexer element 402 to create separate stream 1-100, as disclosed in

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Paragraph [0127], where the stream could be “converted down to 20x16 pixels for example”).

21. In regards to Claim 8, Zaslavsky teaches a computer-readable medium having computer-executable instructions that (program memory 202, as described in Paragraph [0096] Lines 9-11), when executed by a computer (CPU 200 as described in Paragraph [0096] Lines 9-11), performs a method comprising

concurrently receiving a plurality of scaled-reduced versions of video feeds (“thumbnail video feeds”) over a communication network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced scale thumbnail video feeds 1-100 and 101-x. Broadcast Stream 400 is then delivered to the user for display, as described in Paragraph [0131]; with further reference to Fig. 11).

constructing and presenting a user-interface (UI) comprising the plurality of the thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The “channels” (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the “User input selecting “channel” for textural mapping” received by Input Circuit 1708 of Fig. 17); and

Zaslavsky teaches receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 “that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215” (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also “provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images” and “may communicate with the video content server by means of a request signal 221” (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling

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requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach receiving a plurality of audio feeds separately from the plurality of thumbnail video feeds and presenting audio that corresponds to one of the plurality of the presented thumbnail video feeds.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norsworthy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

22. In regards to Claim 11, the combination of Zaslavsky, Dawson, and Norsworthy teach a medium as recited in Claim 8, wherein the method further comprises receiving a

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highlight indication for one of the plurality of the presented thumbnail video feeds (Zaslavsky teaches a highlighted frame of channel 911 shown in Fig. 15, as disclosed in Paragraph [0137] Line 3); presenting audio that corresponds to that highlighted one of the plurality of the presented thumbnail video feeds (Norsworthy teaches presenting audio corresponding to a selected main channel, which is one of a number of picture-in-picture video streams, as disclosed in Col. 3 Lines 36-55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the highlighted indication method of Zaslavsky with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

23. In regards to Claims 15 and 16, the combination of Zaslavsky, Dawson, and Norsworthy teach a medium as recited in Claim 8, wherein the UI that is constructed and presented further comprises information associated with one or more of the plurality of thumbnail video feeds; and wherein the UI that is constructed and presented further comprises electronic program information associated with one or more of the plurality of thumbnail video feeds (Norswothy's method comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704, as disclosed in Col. 6 Lines 8-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed method of Zaslavsky and Dawson

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with the information display method of Norsworthy because this information and video display would give the viewer a general visual impression of what is on the channel (as disclosed by Norsworthy is Col. 6 Lines 1-5), which would therefore further aid the view in determining if the program is desirable enough to watch.

24. In regards to Claim 17, the combination of Zaslavsky, Dawson, and Norsworthy teach a medium as recited in Claim 8, wherein the UI that is constructed and presented further comprises an on-going full-scale video feed (Norsworthy's method comprises a display having a main picture 21 and a plurality of other picture-in-picture displays 21-1 through 22-n, as disclosed in Col.3 Lines 39-45 with reference to Fig. 2. Norsworthy's method is implemented using a specific tuner to display the picture-in-picture images, with reference to Tuner 11 of Fig. 3, as described in Col. 3 Lines 34-38; with further reference to PIP System 90 of Fig. 9, as described in Col. 4 Lines 49-63).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed method and medium of Zaslavsky and Dawson with the display method and medium of Norsworthy because the user would gain the ability to view multiple channels at one time (as Norsworthy discloses in Col.1 lines 21-27).

25. In regards to Claim 18, the combination of Zaslavsky teaches a computing device (CPU 200 as described in Paragraph [0096] Lines 9-11) comprising: a media-stream presentation device (transmission circuit 1806 of Figure 18, as described in Paragraph

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[0142] Lines 9-11); a medium as recited in Claim 8 (the limitations of Claim 8 have been addressed using the combination of Zaslavsky, Dawson, and Norsworthy).

26. In regards to Claim 19, Zaslavsky teaches a method facilitating production of a user-interface (UI), the method comprising

concurrently receiving a plurality of scaled-reduced versions of video feeds ("thumbnail video feeds") over a communication network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced scale thumbnail video feeds 1-100 and 101-x. Broadcast Stream 400 is then delivered to the user for display, as described in Paragraph [0131]; with further reference to Fig. 11).

constructing and presenting a user-interface (UI) comprising the plurality of the thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The "channels" (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the "User input selecting "channel" for textural mapping" received by Input Circuit 1708 of Fig. 17); and

Zaslavsky teaches receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 “that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215” (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also “provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images” and “may communicate with the video content server by means of a request signal 221” (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach receiving a plurality of audio feeds separately from the plurality of thumbnail video feeds and presenting audio that corresponds to one of the plurality of the presented thumbnail video feeds.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norsworthy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

27. In regards to Claim 22, the combination of Zaslavsky, Dawson, and Norsworthy teach a method as recited in Claim 19 further comprising receiving a highlight indication for one of the plurality of the presented thumbnail video feeds; presenting audio that corresponds to that highlighted one of the plurality of the presented thumbnail video

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feeds (these limitations have been addressed with reference to Claim 11 as cited above).

28. In regards to Claim 25 and 26, the combination of Zaslavsky, Dawson, and Norsworthy teach a method as recited in Claim 19, wherein the UI that is constructed and presented further comprises information associated with one or more of the plurality of thumbnail video feeds; and wherein the UI that is constructed and presented further comprises electronic program information associated with one or more of the plurality of thumbnail video feeds (these limitations have been address with reference to Claims 15 and 16 as cited above).

29. In regards to Claim 27, the combination of Zaslavsky, Dawson, and Norsworthy teach a method as recited in Claim 19, wherein the UI that is constructed and presented further comprises an on-going full-scale video feed (these limitations have been address with reference to Claim 17 as cited above).

30. In regards to Claim 28, the combination of Zaslavsky teaches a computer comprising one or more computer-readable media having computer-executable instructions (Zaslavsky discloses a CPU 200 as described in Paragraph [0096] Lines 9-11; with further reference to hardware 1700, as described in Paragraph [0141]) that, when executed by the computer, perform the method as recited in Claim 19 (the limitations of Claim 19 have been address as cited above with the combination of Zaslavsky, Dawson, and Norsworthy).

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31. In regards to Claim 29, Zaslavsky teaches a multimedia system comprising a receiving unit configured for concurrently receiving, without any in-band or out-of-band tuners (hardware used by receiver including Network I/O 213, as described in Paragraphs [0096-0100]), a plurality of scaled-reduced video feeds ("thumbnail video feeds") over a communication network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced scale thumbnail video feeds 1-100 and 101-x. Broadcast Stream 400 is then delivered to the user for display, as described in Paragraph [0131]; with further reference to Fig. 11);

a user-interface (UI) generator configured to generate a UI comprising the plurality of the thumbnail video feeds (interface block 803 generates display areas 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The "channels" (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the "User input selecting "channel" for textual mapping" received by Input Circuit 1708 of Fig. 17);

a presentation device configured for presentation of the UI ("The EPG can be displayed on a television, personal computer, or a device that is a combination..." as disclosed in Paragraph [0114] Lines 7-9).

Zaslavsky teaches receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network. In addition, Zaslavsky

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does not teach the receiving unit is further configured with an upper limit of total bandwidth that is available via the communication network, each thumbnail video feed of the plurality of thumbnail video feeds has a bit-rate property, and the cardinality of the plurality of the thumbnail video feeds received by the receiving unit being bound by the upper limit of total bandwidth that is available via the communication network and the bit-rate properties of the plurality of thumbnail video feeds received by the receiving unit.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 “that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215” (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also “provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images” and “may communicate with the video content server by means of a request signal 221” (as discloses in Paragraph [0032]). In addition, Dawson teaches reducing and limiting the bandwidth space allocated to components of the video output signal, as well as other parameters such as frame rate and image quality (as disclosed in Paragraphs [0008, 0009, 0051, 0052]). As shown in Figures 4A and 4B, Dawson applies an upper limit to the bandwidth that is available via the communications network (i.e. 100%) and also applies a bandwidth limitation to the PIP Display 219 (i.e. 20%).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server and in accordance with the limitations of the transmission network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request and in accordance with network limitations, as taught by Dawson, in order to eliminate the scaling requirement of the client display device and to insure adequate image quality in a main picture display (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach receiving a plurality of audio feeds separately from the plurality of thumbnail video feeds and presenting audio that corresponds to one of the plurality of the presented thumbnail video feeds.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norsworthy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and

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Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

32. In regards to Claim 30, the combination of Zaslavsky, Dawson, and Norsworthy teach a system as recited in Claim 29 further comprising a UI selection device configured for the user to either highlight or select the one or more a plurality of thumbnail video feeds (Zaslavsky discloses an alphanumeric keyboard 218 of Fig. 7, as described in Paragraph [0112] Lines 14-19).

33. In regards to Claims 32 and 33, Zaslavsky and Dawson teach a medium as recited in Claim 31, but do not teach wherein the UI further comprises at least one information display area configured to display information associated with a corresponding thumbnail video feed.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norsworthy's method further comprises the construction and display of an

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Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy's method is implemented in a memory module (memory 14) connected to a processor (video processing 15 as disclosed in Col. 4 Lines 26-34).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed method and medium of Zaslavsky and Dawson with the information display method and medium of Norsworthy because this information and video display would give the viewer a general visual impression of what is on the channel (as disclosed by Norsworthy is Col. 6 Lines 1-5), which would therefore further aid the view in determining if the program is desirable enough to watch.

34. Claims 12, 13, 14, 23, and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky, Dawson, and Norsworthy as applied to Claims 8 and 19 above, and further in view of Gordon et al., United States Patent (6,481,012 B1), hereinafter "Gordon".

35. In regards to Claims 12, 13, 14, 23, and 24 Zaslavsky, Dawson, and Norsworthy teach a method for facilitating the distribution, construction, and presentation of a UI comprising

receiving one or more scaled-reduced version video feeds sent over a communications network (Zaslavsky teaches broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced scale thumbnail video feeds

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1-100 and 101-x. Broadcast Stream 400 is then delivered to the user for display, as described in Paragraph [0131]; with further reference to Fig. 11), and

receiving a selection request that selects one of the plurality of the presented thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user and allows the user to select the preferred channel, as described in Paragraph [0137]. The “channels” (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the “User input selecting “channel” for textural mapping” received by Input Circuit 1708 of Fig. 17);

Zaslavsky suggests that a single channel is selected for display by way of the interface of Figure 15, which is used to “navigate to a selected frame, and select the preferred channel” (as described in Paragraph [0137]), but it is unclear if a full-scale version of a select one of the plurality of the presented thumbnail video feeds is requested or zooming is performed on the select one of the plurality of the presented thumbnail video feeds so that the select one inhabits much or all of the available screen space.

In a similar field of invention, Gordon teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Gordon’s method further comprises “interacting with an object by selecting it to activate a full-resolution broadcast channel” (as disclosed in Col. 24 Lines 11-14;

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with further reference to Fig. 23 and Col. 22 Lines 1-19). Following the selection in the thumbnail view (shown as CH-E of Fig 28), the display changes to a full-resolution view (display 2802 of Fig 28; with further reference to Fig. 23 and Col. 22 Lines 1-19) of the video broadcast for channel E (as disclosed in Col. 24 Lines 14-19). In addition, Gordon demonstrates a "zooming" action when switching from the thumbnail display of CH-E to FULL-RESOLUTION CH-E 2802, as shown in Fig. 28.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed method of Zaslavsky, Dawson, and Norsworthy, with the full-resolution activation method of Gordon because a viewer would desire to display a full resolution and full screen image in order to dedicate their full attention to the broadcast program of interest.

Conclusion

36. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

37. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK A. RYAN whose telephone number is (571)270-5086. The examiner can normally be reached on Mon to Thur, 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. A. R./
Examiner, Art Unit 2427
Monday, June 29, 2009

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427